

## **IN THE CLAIMS:**

Claim 4 was previously canceled. New claims 21-23 are to be added. All claims currently pending in the referenced application are shown in the listing of claims and replace all prior versions and listings of claims.

### **Listing of the Claims:**

1. (Previously presented) An animal feed suitable for feeding a gestating animal and which improves the fertility of an animal fed said animal feed, which feed comprises an amount of lysine and the following amino acids in an amount relative to the amount of lysine (w/w) in the following ranges:

total methionine + cysteine: >0.55;

threonine: >0.60;

tryptophan: >0.15; and

arginine: >1.5,

wherein a daily dosage of at least 200 mg arginine per kg body of the gestating animal (kgbw) is provided upon feeding.

2. (Original) The animal feed of claim 1, which feed is enriched in arginine, such that a dosage of 200 - 1300 mg / (kgbw day) arginine is provided upon feeding.

3. (Previously presented) The animal feed of claim 1, which contains from 1.25 to 10 wt% arginine.

4. (Cancelled).

5. (Previously presented) The animal feed of claim 3, comprising arginine in an amount relative to the amount of lysine (w/w) of more than 2.25.

6. (Previously presented) The animal feed of claim 1, comprising one or more amino acids in an amount relative to the amount of lysine (w/w) in the following ranges:

total methionine + cysteine: 0.55-0.70;  
threonine: 0.60-0.80; and  
tryptophan: 0.15-0.25.

7. (Previously presented) The animal feed of claim 1, wherein the amount of lysine in the animal feed is below 0.8 wt.%.

8. (Previously presented) The animal feed of claim 1, further comprising an amount of  $\text{Ca}^{2+}$  below 1.0 wt%.

9. (Previously presented) The animal feed of claim 1, wherein the arginine is selected from the group consisting of synthetic arginine, arginine rich polypeptide, arginine rich protein, and mixtures thereof.

10. (Previously presented) A premix containing arginine in a sufficient amount, upon mixing with feed, to produce an animal feed suitable for feeding a gestating animal and which improves the fertility of an animal fed said animal feed, said animal feed being enriched in arginine such that a daily dosage of at least 200 mg arginine per kg body weight of the gestating animal is provided upon feeding, which animal feed comprises an amount of lysine and the following amino acids in an amount relative to the amount of lysine (w/w) in the following ranges:

total methionine + cysteine: >0.55;  
threonine: >0.60; and  
tryptophan: >0.15.

11. (Original) A method for increasing the breeding productivity of an animal, said method comprising:  
providing a diet to at least one gestating animal resulting in a daily dosage of 200 - 1300 mg arginine per kg body weight of said at least one gestating animal.

12. (Previously presented) The method according to claim 11, wherein said method comprises feeding the animal an animal feed enriched in arginine, such that a daily dosage of at least 200 mg arginine per kg body weight of said gestating animal is provided upon feeding, which animal feed comprises an amount of lysine and the following amino acids in an amount relative to the amount of lysine (w/w) in the following ranges:

total methionine + cysteine: >0.55;

threonine: >0.60; and

tryptophan: >0.15.

13. (Original) The method according to claim 12, wherein the feeding takes place during critical periods for placental angiogenesis.

14. (Original) The method according to claim 12, wherein said feeding takes place during periods of placental angiogenesis and growth.

15. (Original) The method according to claim 12, wherein said feeding takes place during the perinatal period of gestation.

16. (Original) The method according to claim 11, wherein the animal is a pig and the feeding takes place at days 14-30 of gestation.

17. (Original) The method according to claim 16, wherein the feeding also takes place at days 105-115 of gestation.

18. (Original) The method according to claim 11, wherein the animal is a pig and the diet is provided at days 14-30 of gestation.

19. (Original) The method according to claim 18, wherein the diet is also provided at days 105-115 of gestation.

20. (Original) The animal feed of claim 1, which animal feed is enriched in arginine, such that a dosage of 250 - 650 mg / (kgbw day) arginine is provided upon feeding.

21. (New) A feed with an amount of the amino acids lysine, methionine, cysteine, threonine, tryptophan, and arginine, wherein the amount consists essentially of lysine and the following amino acids in an amount relative to the amount of lysine (w/w) in the following ranges:

total methionine + cysteine: >0.55;  
threonine: >0.60;  
tryptophan: >0.15; and  
arginine: >1.5,

wherein a daily dosage of at least 200 mg arginine per kg body of the gestating animal (kgbw) is provided upon feeding.

22. (New) A method for increasing the breeding productivity of a gestating sow, the method comprising:

providing a diet to a gestating sow resulting in a daily dosage of 200 - 1300 mg arginine per kg body weight of the gestating sow.

23. (New) A method for increasing the breeding productivity of a gestating sow, the method comprising:

providing an amount of the amino acids lysine, methionine, cysteine, threonine, tryptophan, and arginine to the gestating sow, wherein the amount consists essentially of lysine and the following amino acids in an amount relative to the amount of lysine (w/w) in the following ranges:

total methionine + cysteine: >0.55;  
threonine: >0.60;  
tryptophan: >0.15; and  
arginine: >1.5,

so as to provide the gestating sow a daily dosage of 200 - 1300 mg arginine per kg body weight and thus increase the gestating sow's breeding productivity.